

Clark County

Native Plants Communities Guide

May 30th, 2007



*"Native plants,
helping nature do what it
knows how to do best!"*

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Introduction and Overview:

The purpose of the Clark County Native Plant Communities Guide is to assist people with planting native vegetation in designated habitat areas as encouraged by the county's Habitat Conservation Ordinance (HCO). This guide has been designed as an educational tool to help people understand why it is important to use native vegetation, what species to use and how to do it. The success of a revegetation project depends on a number of different factors. This guide is designed to address some of the factors to increase the chances for individual success, identify site conditions, plan projects, and select appropriate plants. It suggests how to prepare a site, how to plant plants, and how to maintain and care for them over time.

Landscaped areas in developed and natural areas have the potential to provide many important environmental functions and services. Many of these areas are valuable ecologically, economically and socially. For example, the beauty of Clark County's natural environment contributes to the high quality of life enjoyed here. Native plants are important because they enhance natural beauty, are best adapted to the area and protect the health of the environment. They are especially important in designated habitat areas, the majority of which are in riparian zones. Native plants are important in these areas because they can improve fish and wildlife habitat by providing shade, cover and food, they can stabilize streambanks, and filter sediment which otherwise degrades water quality.

Native plants conserve water because they are adapted to local conditions and can survive without additional watering and are most likely to survive and flourish because of their adaptation. Every location in the County is part of some type of natural ecological process, and observation is a good way to start learning about and appreciating what is taking place. It does not take long to understand that individual native plants, especially in designated habitat areas are part of larger plant communities. Appropriate plant selection can increase survival and ecological functions through the reconstruction of healthy native plant communities. Once established these communities become self sustaining, providing substantial benefits to habitat and water quality.

It is difficult for native plants to compete with aggressive non native invasive species. When an area gets overwhelmed by an exotic invasive plant, it no longer provides the same natural functions it did before. Fish and wildlife that depend on these areas must go elsewhere to find what they need. Healthy native plant communities are good for Clark County.

This guide is provided to assist people when planting native plants especially in designated habitat areas. The descriptions, detailed lists and diagrams used in this guide are meant to help people understand the concepts as well as providing a starting point for individuals wanting to learn even more. In addition to this guide, there are many other resources that provide a wealth of information on native plantings and a variety of related topics. Many of these resources are listed in the "References and Additional Resource Materials" section at the back of this guide. The county hopes that each project is a success and is willing to provide additional assistance where necessary to ensure that people have the information they need. Best of luck and enjoy yourself!

Getting Started:

The county's Habitat Conservation Ordinance (HCO) encourages the use of native plants where appropriate when planting in designated habitat areas. Clark County's online Property Information Center provides information that can help you determine if your property contains designated habitat areas. The following instructions will help you access the online Property Information Center:

- 1) Go to www.clark.wa.gov
- 2) Go to the "Popular Pages" drop down menu at the top of the page and select "Property Information Center"
- 3) Type in your address and click "Go"
- 4) Click on the 'Environmental' link under the site address at the top of the page.
- 5) Look under Habitat and Cultural Resources in the right hand column to determine if your property contains designated habitat.

If you have questions regarding the online Property Information Center or need additional assistance in finding your information, please contact Clark County Assessment and GIS at (360) 397-2391.

The HCO encourages the use of native plants and the establishment of native plant communities. There are many other situations where using native plants can provide a desirable range of benefits when incorporated into a landscaping project. Most native plants are aesthetically pleasing. When matched with the appropriate site conditions native plants are cost effective because they are drought tolerant, disease resistant and can provide much needed habitat in areas that have previously been degraded.

Plan Your Project:

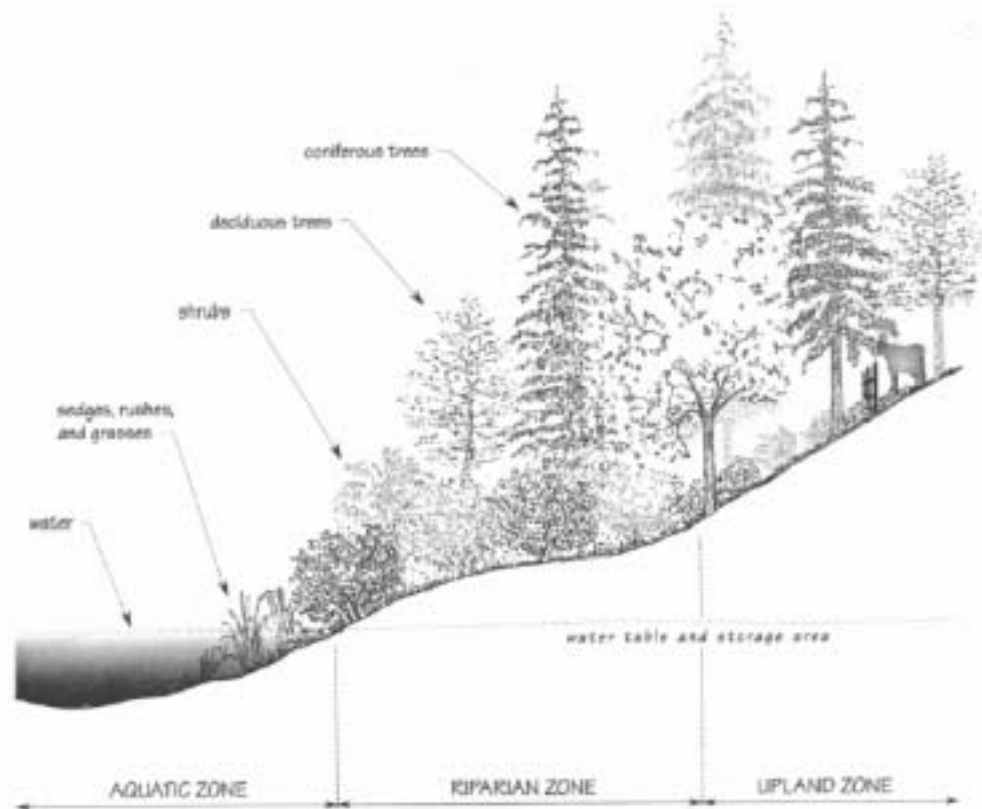
When starting a landscaping project, it is important to know what the goal is. A well defined goal makes completing a task easier. It becomes possible to establish a step by step process designed to accomplish the goal. A few examples of goals for landscaping projects include creating an aesthetically pleasing landscape, removing and replacing invasive plants with natives and creating more natural habitat for the fish and wildlife. Knowing what the project is intended to accomplish makes it easier to determine what types of native plants should be selected. Native plants can be used effectively to accomplish all of the goals mentioned above. In addition they can help save money over time through reduced maintenance and watering as well as prolonged survival when compared to most non native plants.

Identify Site Conditions.

Identifying site conditions is essential to understanding what plant communities will thrive in a specific location. Site conditions depend on a few primary factors including the amount and type of the water supply, soil type, as well as the location, size and configuration of the landscape. Once these conditions have been defined it becomes easier to determine what plant communities will survive and thrive in them. There are many different types of plant communities in Clark County and properly identifying the site conditions increases the chances of making good choices when matching plant communities to the landscape they will inhabit. The HCO encourages the use of native plants where appropriate when planting or replacing invasive exotic plants in designated habitat areas.

This guide illustrates the most common types of site conditions found in designated habitat areas. These include aquatic areas, riparian areas, upland areas as well as the different types of wetlands. Except for wetlands these are illustrated in the graphic below. This guide focuses heavily on riparian areas because the majority of designated habitat areas in Clark County is located in them. They are characterized as the transitional area between a water environment and a land environment, and provide many essential ecological functions to the fish and wildlife and are very sensitive to disturbance.

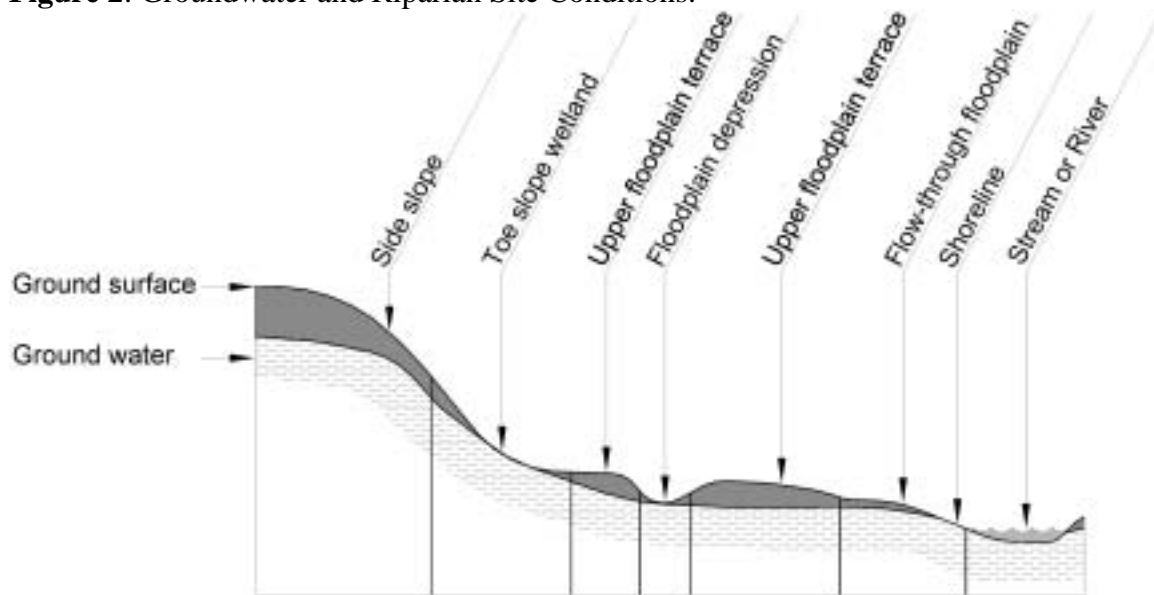
Figure 1: Riparian Area Cross Section.



(source: [Streamside Planting Guide for Western Washington](#), Cowlitz Conservation District)

Next, this guide identifies plant communities that are most often found in designated habitat areas. Plants communities are dependant on the availability of water. The diagram below illustrates the relationship between water and ground, showing how surface and ground water combined with the topography create a variety of different site conditions.

Figure 2: Groundwater and Riparian Site Conditions.



(source: Clark County, unpublished research, Phil Gaddis 2005)

The three types of native plant communities most commonly found in designated habitat areas are the 1) red alder/salmonberry/lady fern plant community, 2) the red cedar – Douglas fir - big-leaf maple/sword fern plant community and the 3) the Oregon ash – black cottonwood/red osier dogwood/ slough sedge plant community (Clark County, unpublished research, Phil Gaddis 2005).

The red alder/salmonberry/lady fern plant community can be found at the shorelines and in low floodplains of streams and rivers. These plant communities may extend into the upper floodplain. The tree canopy layer is dominated by red alder which is often the only tree species present, especially at shoreline.

The red cedar – Douglas fir - big-leaf maple/sword fern plant communities are dominant in the upper floodplain terraces and on the side slopes of stream and river valleys. The canopy tree layer is dominated by a combination of Douglas fir, red cedar, and big-leaf maple, often in equal proportions. The understory species are commonly vine maple, hazel, and snowberry. Snowberry is common and frequently occurs in large patches

The Oregon ash – black cottonwood/red osier dogwood/ slough sedge plant communities most often occur in undisturbed forested riparian areas containing floodplain depressions or other relatively undisturbed and very wet areas of the riparian zones. The tree canopy in these communities are dominated by Oregon ash, and the

understory species include red osier dogwood, twinberry, ninebark, straggly gooseberry, Nootka rose and Douglas spirea.

The table below describes where each of these plant communities are commonly found in relation to specific soil and water conditions as described in the diagram above. This table includes one plant community that has not been thoroughly defined, but does occur on occasion in these areas.

Table 1:

Soil and Water Conditions	Plant Communities
Shoreline and flow-through floodplain	1) Red alder/salmonberry/lady fern
Upper floodplain terrace	2) Red cedar-Douglas fir- big-leaf maple/vine maple/sword fern
Side slopes	2) Red cedar-Douglas fir- big-leaf maple/vine maple/sword fern
Floodplain depressions	3) Oregon ash-black cottonwood/red osier dogwood
Toe slope and groundwater discharge	(Less Common Plant Community) Red cedar/vine maple

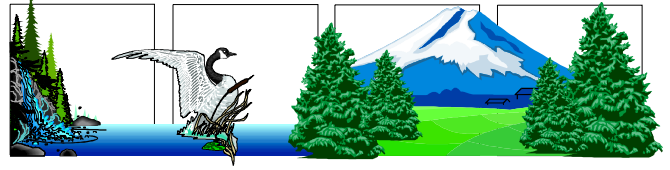
Knowing your soil type will help you select plants that will thrive in the area you are working in. Specific information on soil types and good stewardship of your land can be obtained through Clark Conservation District by calling (360) 883-1987 or visiting their website at <http://www.clarkcd.org/>. Additional environmental information including general soil types can be found on Clark County's online Property Information Center. This site can be accessed by following the instructions below.

- 1) Go to www.clark.wa.gov
- 2) Go to the "Popular Pages" drop down menu at the top of the page and select "Property Information Center"
- 3) Type in your address and click "Go"
- 4) Click on the 'Environmental' link under the site address at the top of the page.
- 5) On the left hand side of the page will be any available information on the soil types listed for the property.

Selecting Appropriate Plants:

Appropriate native plant selection can increase ecological functions at a site level through the reconstruction or enhancement of native plant communities. Once established these communities can become self-sustaining, providing high levels of ecological functions, services and benefits to people and the environment. The Riparian (Stream Side) Vegetation handout found on the following pages can provide useful information when selecting plants to for individual projects.

Riparian (Stream Side) Vegetation



Tree Species	Method of Propagation	Habitat Value	Form and Size	Rooting Character	Soils Preference	Planting Distance
Bigleaf Maple <i>Acer macrophyllum</i>	seedlings	forage, nesting, and hiding cover; hydrologic benefits; large woody debris and organic matter input to streams and forest floor	Mature height of 100 feet	shallow roots	Moist-dry soil, sun-part shade	10' apart
Black Cottonwood <i>Populus trichocarpa</i>	cuttings	Same as above Fast grower; binds loose soils; high water intake	Mature height of 150 feet	Shallow, fibrous roots	Wet-moist soil; sun	10' apart
Douglas-Fir <i>Pseudotsuga menziesii</i>	seedlings	Forage, nesting, and hiding and thermal cover; long-lived; hydro. benefits	Mature height of 250 feet	Shallow roots	Moist-dry soil; sun	10' apart
Red Alder <i>Alnus rubra</i>	Seedlings; cuttings, suckers	Forage, nesting, and hiding cover; Nitrogen fixer, hydro. Benefits, LWD and OM input	Mature height of 80-120 feet	Shallow, strong, lateral roots	Moist-dry soil; sun-shade	10' apart
Western Hemlock <i>Tsuga heterophylla</i>	Seedlings, foliage	Forage, nesting, and hiding and thermal cover; long-lived, hydro. Benefits LWD inputs denning habitat	Mature height of 200-250 feet	Shallow roots	Moist soil; shade	10' apart
Western Red Cedar <i>Thuja plicata</i>	Seedlings	Same as above	Mature height of 200-250 feet	Shallow roots	Moist-wet soil: shade	10' apart

Shrub Species	Method of Propagation	Habitat Value	Form and Size	Rooting Character	Soils Preference	Planting Distance
Black Twinberry <i>Lonicera involucrata</i>	Cuttings	Forage and hiding cover	Spreading shrub to 10 feet	Shallow, spreading roots	Wet-moist soil; shade	4'-6' apart
Cascara <i>Rhamnus purshiana</i>	Cuttings	Forage, hiding, and nesting cover, hydro. Benefits; LWD and OM input to streams and forest floor	Large shrub or tree to 30 feet	Shallow roots	Moist-dry soil; sun- shade	4'-6' apart
Douglas Spiraea <i>Spiraea douglasii</i>	Divisions; suckers; root cuttings; cuttings	Forage, nesting, and hiding cover; OM input	Dense shrub to 7 feet	Extensive, fibrous roots	Wet-well drained soil; sun-shade	4'-6' apart
Hazelnut <i>Corylus cornuta</i>	Seeds; suckers	Forage, nesting, and hiding cover	Shrub to 15 feet	Extensive, branching roots	Moist-dry soil; sun-shade	4'-6' apart



Riparian (Stream Side) Vegetation

Indian Plum <i>Oemleria cerasiformis</i>	Seeds; cuttings	Same as above	Sparse shrub to 15 feet	Shallow, spreading roots	Moist-dry soil; sun-shade	4'-6' apart
Mock Orange	Cuttings; layers	Same as above	Shrub to 15 feet	Fibrous roots	Moist-dry soil	4'-6' apart
Oceanspray <i>Holodiscus discolor</i>	Seeds	Forage, nesting, and hiding cover	Shrub to 10 feet	Shallow, spreading roots	Moist-dry soil; sun-part shade	4'-6' apart
Pacific Ninebark <i>Physocarpus capitatus</i>	Cuttings	Same as above	Sparse shrub to 20 feet	Shallow, lateral roots	Moist-well drained soil; sun-shade	4'-6' apart
Red Elderberry <i>Sambucus racemosa</i>	Cuttings from 2 nd year wood, root cuttings, seed	Same as above	shrub to 20 feet	Fibrous; strong adventitious roots	Moist-dry soil; sun-shade	4'-6' apart
Red-osier Dogwood <i>Cornus stolonifera</i>	Cuttings; layers	Forage, nesting, and hiding cover; LWD and OM input streams and forest floor	Shrub to 20 feet	Shallow, strong lateral fibrous roots; spreads by rootstocks	Wet-well drained soil; sun-shade	6'-8' apart
Salmonberry <i>Rubus spectabilis</i>	Divisions, cuttings, root cuttings	Forage, nesting, and hiding cover	Ground cover and shrubs to 10 feet	Shallow, fibrous trailing branches, set roots	Wet-dry soil; sun-shade	4'-6' apart
Serviceberry <i>Amelanchier alnifolia</i>	Suckers; seedling	Same as above	Shrub or small tree to 30 feet	Deep, spreading roots	Well drained dry soil; sun	4'-6' apart
Sitka Alder <i>Alnus sinuata</i>	Seedlings; cuttings; suckers	Forage, nesting, and hiding cover; LWD & OM input; Nitrogen fixer	Shrub to 25 feet	Shallow, extensive roots	Moist soil	6'-8' apart
Snowberry <i>Symphoricarpos albus</i> , <i>Symphoricarpos mollis</i>	Suckers, cuttings	Forage, nesting, and hiding cover	Densse shrub; albus to 3 feet; mollis to 1 foot	Extensive branching, fibrous roots, spreads by rootstocks	Moist-well drained soil; sun-shade	4'-6' apart
Tall Oregon Grape <i>Berberis aquifolium</i>	Cuttings, layers	Same as above	Shrub to 7 feet	Deep, rhizomatous roots, spreads by rootstocks	Well-drained soil; sun-shade	4'-6' apart
Vine Maple <i>Acer circinatum</i>	2 nd year wood placed horizontally; seedlings	Forage, nesting, and hiding cover, LWD and OM input hydro benefits	Shrub or small tree to 35 feet	Spreading, moderately deep roots	Moist-dry soils, sun-partial shade	4'-6' apart
Wild Rose <i>Rosa nutkana</i>	Stem cuttings; root cuttings; layers	Forage, nesting, and hiding cover	Sparse to dense shrubs to 4 feet	Poor for erosion control	Dry-moist soils; sun-partial shade	4'-6' apart
Willow <i>Salix spp.</i>	cuttings	Forage, nesting, and hiding cover; LWD and OM input; hydro benefits; high water intake; binds loose soils	Shrubs or trees to 40 feet	Shallow, extensive roots	Moist-wet soils; sun	4'-6' apart

In addition to the Riparian Vegetation handout, there are many other sources of information about native plants for this region. One of the most detailed resources is the award winning Portland Plant List. It is available online at, <http://www.portlandonline.com/shared/cfm/image.cfm?id=58951> . More resources are listed in the back of this guide in the 'Plant List and Plant Guide' section. Choosing plants is can be fun and challenging. It is a good idea to work with local nurseries when developing a landscaping plan because they can provide the plant stock needed to complete the project. Clark County provides a list of local Habitat Nurseries as detailed in Public Information Handout No. 31-G, **Habitat Nurseries**. This information is not intended as an endorsement for the nurseries listed below, but is provided as a service.

**Aldrich Berry Farm
and Nursery, Inc.**
190 Aldrich Road
Mossyrock, WA 98564
(360) 983-3138
(360) 983-8588 fax

Aurora Forest Nursery
6051 S. Lone Elder Road
Aurora, OR 97002
(503) 266-2018

Bosky Dell Natives
West Linn, Oregon
(503) 638-5945
www.boskydellnatives.com

Brooks Tree Farm
9785 Portland Road NE
Salem, Oregon 97305
(503) 393-6300

County Conservation District
11104 NE 149th Street
Building C-100
Brush Prairie, WA 98606
(360) 696-7631

**Hobbs & Hopkins Ltd.
Native Grass Seed**
1712 SE Ankeny
Portland, OR 97214
(503) 239-7518
(503) 230-0391 fax
1-800-345-3295

Five Star Nursery
13312 NE 414th Street
Amboy, WA 98601-3519
(360) 263-3104
fivestar@pacifier.com

Lewis River Reforestation, Inc.
1203 NW Hayes River Road
Woodland, WA 98674
(360) 225-6357

Lewis River Nursery, Inc.
2820 NE 43rd
Woodland, WA
(360) 225-6455

Microseed Nursery
P.O. Box 35
Ridgefield, WA 98642
(360) 887-4477
(360) 887-4477 fax
microseed@aol.com

**Mima Forest Nursery
Weyerhaeuser Company**
8844 Gates Road SW
Olympia, WA 98512
(360) 273-5578

Rochester Regeneration Center
7935 Highway 12SW
Rochester, WA 98579
(360) 273-5527

Syverson Seed, Inc.
P.O. Box 520
Ridgefield, WA 98642
(360) 887-4094
(360) 887-4095 fax

Viewcrest Nurseries
12713 NE 184th Street
Battle Ground, WA 98604
(360) 687-5167
(360) 687-1212 fax

Watershed Garden Works
2039 44th Ave
Longview, WA
(360) 423-6456
www.watershedgardenworks.com

Site Preparation and Planting Procedures:

Plant Materials:

It is very important to choose plant materials that are specific to the planting site. Check the County's GIS database for information on your property, whether or not there is designated habitat on it and what types of soils have been identified on it. Further information on soil types and good stewardship of your land can be received from the Clark Conservation District by calling (360) 883-1987 or visiting their website <http://www.clarkcd.org/>. Native materials should always be used when planting streambanks. They have a lower mortality rate and require less maintenance than non-native species. Always avoid hot summer plantings, late fall through early spring is best. There are four types of plant materials:

Bare root plants:

Bare root plants are removed from the earth while still dormant in late fall or winter. These plants are generally about 2 years old. Nurseries grow bare root stock in the field or in a greenhouse. Nurseries designate where and for how long the stock was grown. The following is a list of that designation. These are in order of increasing cost and viability.

- 1-1 1 yr in greenhouse, 1 yr in field.
- 2-0 2 yrs in greenhouse.
- 2-1 2 yrs in greenhouse, 1 yr in field.
- P-1 1 yr in container, 1 yr in field (Plug-1).

Bare root stock can be planted in late fall, early winter, or early spring which allows time for root recovery for spring growth. These are an inexpensive form of nursery-bought material and commonly include deciduous trees and shrubs. Many Conservation Districts sell bare root stock in small or large quantities.

Balled and burlapped plants (B&B):

Balled and burlapped plants are dug with a ball of soil around the roots, which is wrapped in burlap or some other material. B&B plants may have a higher survival rate than bare root stock, but they are also more expensive. These must be planted before spring.

Container plants:

Container plants are grown in containers rather than in the ground. They are usually small and expensive. Some deciduous plants which cannot be handled as bare root stock can be transplanted successfully from containers. These can be planted year round in some areas.

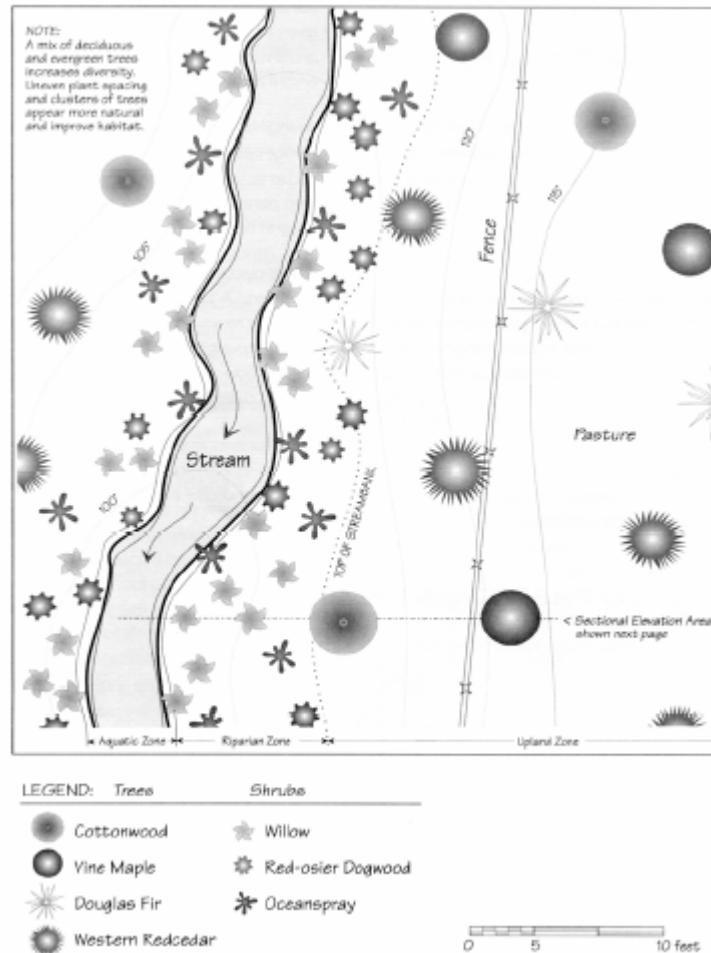
Cuttings:

Cuttings are sections of branches taken from trees or shrubs such as willow or cottonwood. When planted in the ground, the cuttings sprout roots below the soil and shoots above the soil.

Planting Plan:

A planting design provides a guideline for revegetation activities. The area designated for planting can be as large or small as the landowner chooses, given site constraints. The planting design will also depend on the landowner's goals for the property.

Figure 3:



(source: Streamside Planting Guide for Western Washington, Cowlitz Conservation District)

King County has developed a sophisticated interactive website landscape design tool that will help you map out your planting plan. You can access the website by going to (link: <http://dnr.metrokc.gov/wlr/pi/go-native/>) .

Tips for Planting Day:

There are several factors to consider when revegetating streams. The factors, highlighted below are particularly important if trees and shrubs are planted in pasture zones where grass competes with trees for water and nutrition. This and more information is available in the Streamside Planting Guide <http://www.clarkcd.org/pdf/SSPG.pdf> .



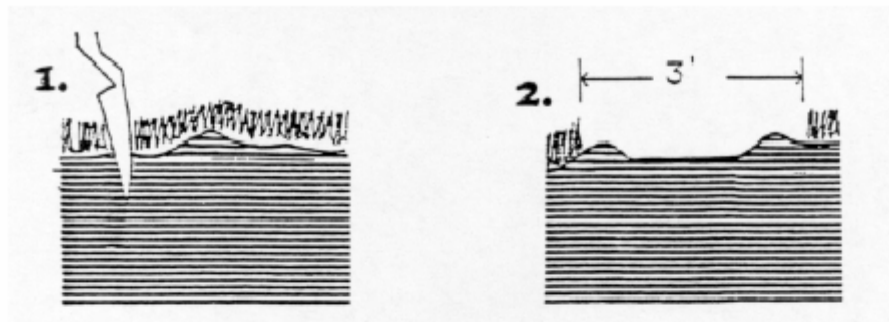
Art provided courtesy of the Puget Sound Water Quality Authority from Puget Soundbook.

- * It is important to select plant materials that are appropriate for the site. Use a soil survey and check with your local CONSERVATION DISTRICT for recommendations.
- * Keep seedlings cool and moist before planting. Cold refrigeration between 34-36 degrees F is optimum.
- * Planting during wet months increases the likelihood that roots will be moist during the initial growing period. Late February to Mid March is generally a good planting time, but local weather conditions should be considered.
- * Keeping roots damp and covered before planting is **critical**. If roots are exposed to sun or wind, even for a few minutes, the tree can die. Keep plant materials in a burlap bag until the planting hole is dug. A good idea is to gently wrap moist saw dust around the roots before they are planted. Once the hole is dug, and the tree or shrub is placed in the hole, gently but quickly place loose soil over the roots.
- * Planting trees on an overcast or rainy day can reduce the potential for the roots to dry. Watering the trees and shrubs after planting ensures that the roots remain moist by filling large air pockets which can dry the roots.
- * Strategically place trees and shrubs. Willows should be planted as close to the stream as possible. Trees that will be large at maturity should not be planted right next to the stream. As they grow, their weight may topple them, disturbing the soil and de-stabilizing the streambank. Cedar and Hemlock must be planted in shady, wet areas.

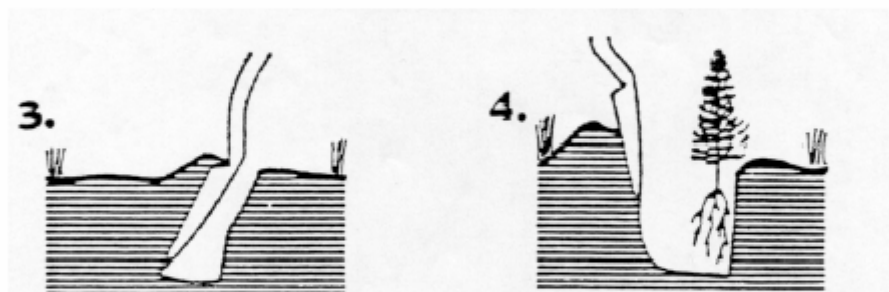
- * The width and length of the planting zone can be as wide and as long as the landowner prefers. If plantings become too dense in subsequent years, they can be thinned.
- * Plant trees 10-12 feet apart, shrubs 5-8 feet, and willows 2 feet apart. This insures that they will not compete with each other as they get older.
- * Pasture sod should be removed in 3 foot diameter circles. This will reduce the competition from grass, which can grow as tall as 6 feet during the spring. Grass can shade seedlings and out-compete the trees and shrubs for precious water. Grass also provides habitat for rodents which eat the bark of the trees and shrubs resulting in severe damage or death of the tree.
- * In very grassy sites where competition will be a problem, weed mats are extremely useful. These mats are block sunlight to the weeds, but allow water to seep to the plants roots. They are also biodegradable.
- * If animal browse will be a problem, (rodents/beaver/deer), biodegradable tree tubes are a must. They need to be placed around the tree immediately after planting. Waiting a week can mean life or death to your planting.
- * Flag trees and shrubs after planting in order to locate them at a later date for maintenance.
- * Fertilizing trees and shrubs is not necessary since native plants should not require additional nutrients. Also, fertilizer can encourage the growth of competing grasses and may pollute the stream if not applied correctly.

Figure 4:

Remember to keep the roots out of direct sunlight and wind until the trees and shrubs are ready to plant.

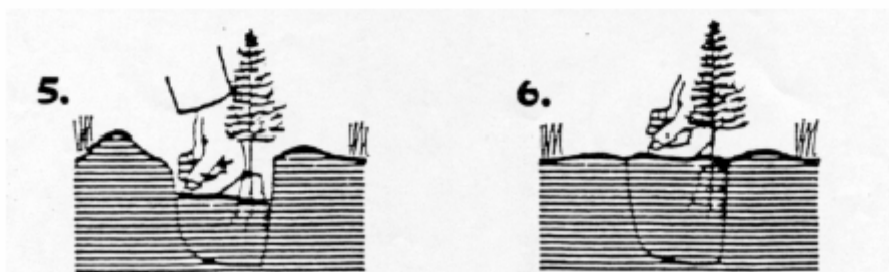


Remove or "scalp" sod with shovel at least **3 feet** in diameter.



Dig a hole that is slightly deeper than the root mass

Insert the tree at the proper planting depth; do not bend the roots.



Cover roots with loose soil, not clods.
You can loosen soil with shovel

Compact soil at base of tree making sure tree is straight. Water the tree

(source: [Streamside Planting Guide for Western Washington](#), Cowlitz Conservation District)

Maintenance Procedures:

During the first three years of growth, young trees and shrubs are very susceptible to drought, competition for light and nutrients, and browsing by livestock and wildlife. To increase survival of your plantings, it is important that they receive special attention during this early growing period. The following procedures may increase the survival of young trees and shrubs:

- * The planted material should be inspected every month during the first year and quarterly during the next two years to see if there is any damage to the trees and shrubs to determine what action should be taken to deter further damage.
- * If rodents become a problem, wrap aluminum foil around the base of the tree. Check periodically for molding and retention of water in between the bark and foil.
- * If deer and elk pose a problem, biodegradable plastic tubes or netting are available at forestry supply stores.
- * Fence livestock from the planting site. Alternative watering sources can be developed away from the stream to provide water to the animals.
- * Drought is hazardous to young seedlings. Water deeply every 2-3 weeks if drought persists during the first year.
- * If planting is done in a pasture, the grass should be periodically removed around each tree and shrub to maintain the original 3 foot diameter sod cut. Grass should be removed once in spring and once in fall during the first three years to reduce grass competition.
- * Beaver can extensively harvest willow cuttings and cottonwood seedlings and may have to be relocated. Wildlife agencies should be contacted for assistance and recommendations.

References and Additional Resources Materials:

(The information provided below was used in the compilation of this document. It does not represent a comprehensive list of materials available on this and related topics).

- Bosky Dell Natives, <http://www.boskydellnatives.com> , the website includes a Habitat Gardening Handout:
http://www.boskydellnatives.com/bielke_handout.htm .
- City of Portland Oregon, 2004, The Portland Plant List.
<http://www.portlandonline.com/shared/cfm/image.cfm?id=58951>
- Clark County, 1993, “Streamside Planting Guide”.
- Clark County, “Riparian (Stream Side) Vegetation” Public Information Handout No. 31-D,
<http://www.co.clark.wa.us/commdev/documents/devservices/handouts/31d-ripveg.pdf>
- Clark County, 2005, Riparian Landscape Guidelines, unpublished research by Phil Gaddis.
- Clark County, “Alternatives to Pesticides, A Guide to Healthier and Happier Gardening” Clark County Naturally Beautiful Backyards Program.
- Clark County, “Earth Friendly Gardening Contest, The first Annual Natural Gardening Contest for Chemical-Free Gardeners in Clark County” Clark County Naturally Beautiful Backyards Program.
- Clark County, “Alternatives to Pesticides, A Guide to Healthier and Happier Gardening” Clark County Naturally Beautiful Backyards Program.
- Clark County, “Gardening with Native Plants, You Can Make a Difference” Clark County Public Works, Water Resources.
- Clark County, “How to be a Salmon Friendly Gardener” Clark County ESA Program.
- Clark County, “Naturally Beautiful Backyards Program, Earth Friendly Gardening in Clark County” Clark County Naturally Beautiful Backyards Program.
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